

Message

From: Jennings, Eleanor [Eleanor.Jennings@parsons.com]
Sent: 9/20/2018 10:33:01 PM
To: d'Almeida, Carolyn K. [dAlmeida.Carolyn@epa.gov]; Brasaemle, Karla [Karla.Brasaemle@TechLawInc.com]
CC: Nicole Goers [Nicole.Goers@TechLawInc.com]; Davis, Eva [Davis.Eva@epa.gov]; Dan Pope [DPope@css-inc.com]; Wayne Miller [Miller.Wayne@azdeq.gov]; Paula Panzino [Panzino.Paula@azdeq.gov]
Subject: RE: 2018-9-20 - wafb - FYI - ejennings DRAFT comments -microbial insights data rpt - ST012-ej parsons

SiREM has done a lot of bioaugmentation work. I've done a lot of work directly with two of their lead microbiologists, and so I've reached out to them. One is on travel at the moment, and the other will likely get back to me in the morning.

Microbial Insights does not provide bioaugmentation cultures.

Eleanor M. Jennings, M.S., PhD
Principal Scientist - Environmental Microbiology and Biogeochemistry
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"Safety Isn't Expensive. It's Priceless."

From: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>
Sent: Thursday, September 20, 2018 6:07 PM
To: Brasaemle, Karla <Karla.Brasaemle@TechLawInc.com>
Cc: Nicole Goers <Nicole.Goers@TechLawInc.com>; Davis, Eva <Davis.Eva@epa.gov>; Dan Pope <DPope@css-inc.com>; Wayne Miller <Miller.Wayne@azdeq.gov>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Paula Panzino <Panzino.Paula@azdeq.gov>
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Does MI or other vendor sell such amendments? Would bench scale tests be advisable first?

Carolyn d'Almeida
Remedial Project Manager
Federal Facilities Branch (SFD 8-1)
US EPA Region 9 Laboratory
1337 South 46th Street, Building 201
Richmond, CA 94804
(415) 972-3150

"Because a waste is a terrible thing to mind..."

From: Brasaemle, Karla [mailto:Karla.Brasaemle@TechLawInc.com]
Sent: Thursday, September 20, 2018 2:59 PM
To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>
Cc: Nicole Goers <Nicole.Goers@TechLawInc.com>
Subject: RE: 2018-9-20 - wafb - FYI - ejennings DRAFT comments -microbial insights data rpt - ST012-ej parsons

Hi Carolyn,

This is not good news. The AF contractor should be acquiring a suitable bio-augmentation culture that would degrade benzene and other petroleum products. Without injecting a suitable culture, sulfate should not be injected.

Karla Brasaemle, P.G.,
TechLaw, Inc.
415-762-0566

From: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>

Sent: Thursday, September 20, 2018 2:49 PM

To: Brasaemle, Karla <Karla.Brasaemle@TechLawInc.com>

Cc: Goers, Nicole <Nicole.Goers@TechLawInc.com>

Subject: FW: 2018-9-20 - wafb - FYI - ejennings DRAFT comments -microbial insights data rpt - ST012-ej parsons

FYI

Eleanor's analysis of the microbial insights data attached. See conclusion on page 10:

5 SUMMARY

Frozen microbial community DNA, initially obtained for a narrow-spectrum genetic profile of six Site samples, was used for a more broad Quant-Array (Petroleum) genetic analysis. The key results of this available data reveal:

- No samples revealed detectable levels of anaerobic benzene-specific biodegradation
- Although aerobic biodegradation of aromatic hydrocarbons was detected in two of the six samples, it cannot be confirmed that these results are from benzene-specific bioattenuation or if the results reflect the degradation of other, non-benzene, aromatic hydrocarbons.
- The presence of an indigenous, benzene-specific biodegrading microbial population has not yet been confirmed for this Site.
- Benzene biodegradation under sulfate-reducing conditions is not occurring at this Site.

This data should be strongly considered when future Site MNA or EBR plans are being employed.

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"Because a waste is a terrible thing to mind..."

From: Wayne Miller [mailto:Miller.Wayne@azdeg.gov]

Sent: Thursday, September 20, 2018 1:08 PM

To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>

Cc: Davis, Eva <Davis.Eva@epa.gov>; Dan Pope <DPope@css-inc.com>; Paula Panzino <Panzino.Paula@azdeq.gov>

Subject: 2018-9-20 - wafb - FYI - ejennings DRAFT comments -microbial insights data rpt - ST012-ej parsons

For initial EPA-ADEQ discussion points, attached are Eleanor Jennings initial draft comments.

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